

What is claimed is:

1. A data-insertion-degree adjustment method for adjusting second data into first data, said method comprising:

inserting said second data into said first data at a predetermined insertion degree, and so as to create third data;

5 selecting either data of said first data and said third data;

counting number NA of times selection is made in said selecting and number N3 of times said third data is selected;

comparing a predetermined threshold value with a proportion $N3/NA$ of the number N3 to the number NA; and

10 changing an insertion degree at which the second data is inserted into the first data, by increasing the insertion degree, in a case where the proportion $N3/NA$ is smaller than the threshold value.

2. The method according to claim 1, wherein:

the first data is data in unit of frames;

said counting includes counting number NA of times selection is made in said selecting per frame and the number N3 of times the third data is selected per frame; and

5 said changing the insertion degree includes increasing the insertion degree for a next frame, in the case where the proportion $N3/NA$ is smaller than the threshold value.

3. The method according to claim 1, wherein said inserting includes:

creating the second data to be inserted into the first data;

creating fourth data, by multiplying the created second data by the predetermined insertion degree; and

5 creating the third data by inserting the fourth data into the first data.

4. The method according to claim 1, wherein said counting includes counting up by one, every time the third data is selected.

5. The method according to claim 1, wherein said counting includes counting up

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by a value corresponding to the predetermined insertion degree, every time the third data is selected.

6. The method according to claim 1, wherein said changing includes increasing the insertion degree and decreasing the threshold value, in the case where the proportion $N3/NA$ is smaller than the threshold value.

7. The method according to claim 1, wherein said changing includes increasing the insertion degree in accordance with the number $N3$, in the case where the proportion is smaller than the threshold value.

8. The method according to claim 1, wherein said inserting includes:

variable-length decoding the first data which is variable-length coded data, so as to output a RUN and Level;

5 creating fifth data by adding the fourth data, which has been obtained by multiplying the second data by the predetermined insertion degree, to the output Level; and

creating variable variable-length coded data as the third data, by variable-length coding the fifth data and the output RUN.

9. The method according to claim 8, wherein the first data is created according to MPEG2 standard.

10. The method according to claim 1, wherein said selecting includes:

comparing includes comparing a data length of the third data and a data length of the first data;

5 selecting the third data in a case where the data length of the third data coincides with the data length of the first data; and

selecting the first data in a case where the data length of the third data does not coincide with the data length of the first data.

11. A data insertion circuit for inserting second data into first data, said circuit comprising:

an insertion circuit which inserts the second data into the first data at a

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predetermined insertion degree so as to create third data;

- 5 a selection circuit which selects either data of the first data and third data;
 a counter which counts number NA of times selection is made in said selection circuit and number N3 of times the third data is selected; and
 an adjustment circuit which adjusts the insertion degree, based on the numbers counted by said counter.

12. The data insertion circuit according to claim 11, wherein said adjustment circuit includes a comparison circuit which compares a predetermined threshold value with a proportion of the number N3 to the number NA which are counted by said counter, and increases the insertion degree, in a case where the proportion of the number N3 to the number NA is smaller than the threshold value.

13. The data insertion circuit according to claim 12, wherein:

the first data is data in unit of frames;

said counter counts the number NA of times selection is made by said selection circuit per frame and the number N3 of times the third data is selected per frame; and

- 5 said comparison circuit compares the proportion $N3/NA$ of the number N3 to the number NA with the predetermined threshold value, and increases the insertion degree for a next frame, in the case where the proportion $N3/NA$ of the number N3 to the number NA is smaller than the threshold value.

14. The data insertion circuit according to claim 12, wherein said insertion circuit includes:

a data creation circuit which creates the second data;

- a multiplication unit which creates fourth data by multiplying the created second data by the insertion degree; and

an adder which creates the third data by adding the first and fourth data.

15. The data insertion circuit according to claim 12, wherein said counter includes:

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a first counter which counts number of times the selection is made by said selection circuit; and

- 5 a second counter which counts up by one, every time said selector selects the third data.

16. The data insertion circuit according to claim 15, said comparison circuit increases the insertion degree and decreases the threshold value, in a case where a value, obtained by dividing the number counted by said second counter by a number counted by said first counter, is smaller than the threshold value.

17. The data insertion circuit according to claim 12, wherein said counter includes a first counter which counts number of times selections is made by said selection circuit, and a second counter which counts up a value representing the insertion degree, every time the third data is selected.

18. The data insertion circuit according to claim 17, wherein said comparison circuit increases the insertion degree and decreases the threshold value, in a case where a value, obtained by dividing the number counted by said second counter by a number counted by said first counter, is smaller than the threshold value.

19. The data insertion circuit according to claim 12, wherein said comparison circuit increases the insertion degree and decreases the threshold value, in the case where the proportion $N3/NA$ is smaller than the threshold value.

20. The data insertion circuit according to claim 12, wherein said comparison circuit increases the insertion degree in accordance with the number $N3$, in the case where the proportion $N3/NA$ is smaller than the threshold value.

21. The data insertion circuit according to claim 11, wherein said insertion circuit includes:

a variable-length decoder circuit which variable-length decodes the first data which is variable-length coded data, so as to output a RUN and Level;

- 5 an adder which adds fourth data, obtained by multiplying the second data by the

insertion degree, to the output Level, so as to create fifth data; and

a variable-length coder device which variable-length codes the fifth data and the output RUN, so as to create variable-length coded data which is the third data.

22. The data insertion circuit according to claim 21, wherein the variable-length coded data is created according to MPEG2 standard.

23. The data insertion circuit according to claim 11, wherein said selection circuit:

compares a data length of the third data and a data length of the first data;

selects the third data in a case where the data length of the third data coincides with
5 the data length of the first data; and

selects the first data in a case where the data length of the third data does not coincide with the data length of the first data.

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